

PRIORITY IN FAMILY NAMES AND RELATED MATTERS.

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What would we say if some iconoclast in nomenclature should promulgate the dictum that the type of each genus must be the earliest described species now included in that genus? But when we stop to think of it that would be no more revolutionary than Kirkaldy's scheme to make the earliest described genus in each family the type genus of that family and when necessary to rename the family so it shall bear the name of such genus; a scheme, strange to say, that has had a considerable following among continental Hemipterists. Kirkaldy was led to his action through his efforts to restrict the limits of certain of the families of the earlier writers on Hemiptera and to use the names already applied for his new family concepts. Had he adopted instead the "historical method" used by him in naming genotypes and treated family names by the same rule he applied to generic names most of his difficulties would have vanished at once.

In 1911 Dr. Horvath gave us in outline his plan to apply the rule of priority to family names as it has long been applied in the case of generic and specific names. This it seems to me is the only logical way to treat family names. I can conceive of no argument against such a course that would not apply with equal force to the application of the rule of priority to the names of genera and species.

In working out the nomenclature of my Catalogue of North American Hemiptera I adopted Dr. Horvath's plan in its broader principles, changing a few details where its practical application developed weak points. I have become much interested in the results of my undertaking and thought it might not be inappropriate to lay before this Society an outline of the "rules" if such they might be called, for the formation and limitation of the names of families and other group names higher than genera, used by me in the preparation of this catalogue. In brief these are as follows:

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First. The name of each family must be derived from that of some included genus and such genus then automatically becomes the type of such family, and the family name must follow that of its type genus through all its mutations. Hence, if the name of the type genus is found to be preoccupied the family must take the new name applied to such genus and not the next oldest name used in the family, as that would virtually be changing the type and thus breaking down the very foundation of the plan.

Second. A family name cannot be rejected when the limits of the family are extended or restricted any more than in the case of a generic name. The family name merely means the group of genera related to the type genus be that group large or small.

Third. While desirable it is not essential that the name of a family as first founded be in the correct latin form. Colloquial names when formed from a valid generic name so as to indicate indubitably the type genus must be accepted. Similarly, a family name founded with a different termination or in a different category is to be accepted and its termination changed to bring it into accord with the International Rules. Hence, a subfamily or tribe may be raised to family rank by changing its termination to *idæ*.

Fourth. When two or more families are united the name having priority must stand. Page precedence must not be confounded with priority, it has little to do with nomenclature and should be applied only as a last resort.

Fifth. However desirable it is not essential to validity that the founding of a new family be accompanied by a description or even a summary of family characters. If the name be properly formed from that of a generic name that genus becomes its type and it is to consist of the genera related to that type genus. If characters are named and a later writer gives the family a wider or narrower scope he cannot rename it on the assumption that he has founded a new family.

Sixth. If a family be divided into subfamilies, tribes or divisions the section in each category containing the type genus must bear the name of that genus with the termination *inæ* for subfamilies, *ini* for tribes and *aria* for divisions. This is in

accord with the International Committee's rule that in a genus divided into subgenera the one containing the type species shall bear the name of the genus.

So much for family names. I now wish to call attention to a few other points in nomenclature that have forced themselves upon me during the preparation of this catalogue.

First, and perhaps most important: What constitutes the founding of a genus? I have looked in vain in the International Rules for an answer to this question, but one conclusion seems incontrovertible: *No genus is valid until a type species can be named for it.* Thus a genus described without the mention of a species is invalid until a species is included in it and it must then date from the inclusion of such species, and must take for its author the one assigning the species.

Second. A genus founded without a description but with a definite statement or indication that it is founded on a certain species is valid if the species named has been properly described. If we refuse to accept such a generic name we must also refuse to accept a genus founded in connection with a species in a single description.

Third. A mere catalogue name is a *nomen nudum* and is invalid except in cases where it is perfectly evident that it was given to replace a preoccupied name, or a name cited in error.

Fourth. Emendations are not desirable except where there has been an obvious misprint or error in spelling. Thus I have restored to their original form most of the numerous names emended by Amyot and Serville.

Fifth. The selection of a genotype is a matter of great importance as in many cases a selection may change the meaning or scope of a genus. In my catalogue I have used the earliest type fixation known to me that does not conflict with the International Rules and common sense. Among the early writers it is sometimes difficult to be certain just what should be considered as type fixations. So far as I can discover Lamarck, in 1801, was the first to say he was indicating the type species in the Hemiptera. Fabricius certainly indicated type species for most of the genera in the *Systema Rhyngotorum*, in 1803, by repeating with italics the generic characters in his description of the type species. That this was his intention in repeating these

generic characters we are informed by Fallen who was almost or quite a contemporary of Fabricius. Latreille in 1810 was the next to say he was naming types for the genera of the Hemiptera, followed by Laporte in 1832 and Westwood in 1840. Kirkaldy claims that Latreille in his work of 1802, in naming "examples" under each genus, was really naming types but I have been unable to accept this as he so obviously was selecting the species most likely to be known to those students living in France and did not restrict himself to them in his definite type fixations of 1810. Some of those early systematists named two types to a genus and in such cases I have followed Kirkaldy in rejecting both and taking the next valid fixation.

In the matter of species there is but one point I wish to bring out. As I understand the International Rules subgenera are placed on the same footing as genera and subspecies and varieties on the same footing as species. Hence, subgeneric names are preoccupied by generic, and subspecies and variety names are preoccupied by those of species, and vice versa. This principle has not been recognized in the Oshanin Catalogue but it is really essential that it be generally adopted on account of the frequency with which a form is shifted from one category to another.

Before closing, I wish to call attention to a matter that it seems to me is of prime importance and that is what I would call the validation of entomological literature. If you will take the trouble to look up the matter you will find that most of the changes in names come through different methods of selecting genotypes and through varying views regarding the validity of certain early papers. After we think we have the nomenclature of some group of insects well settled some one will dig up an ancient catalogue and discover there new names, generic and specific, and armed with these he will proceed to demolish our nomenclature. Our most crying need now is for a validated list of early books and papers, published, say, prior to 1850, and I would strongly urge that a committee be appointed, preferably by the International Zoological Congress, to go over the zoological bibliographies, which are now fairly complete, and decide which works are valid and which are mere catalogues or are too ephemeral to have a standing in zoological nomenclature. That we should discard mere catalogue names

is I think irrefutable. Anyone who thinks otherwise will certainly be cured of this delusion if he will read Stephen's introduction to his Catalogue of 1829, where he says in effect that he does not care to take either the time or trouble to prepare descriptions of the numerous new genera he has established in his catalogue but will leave that task to anyone who feels inclined to undertake it, with the inference that it could be done by someone whose time is less valuable than his. I am sure no sane person would think of using Stephen's names after reading that preface, or perhaps I should say of crediting them to Stephens. If the Zoologists as a whole are not willing to undertake the preparation of such a validated bibliography I can see no reason why the entomologists should not do so independently. It would then be up to the Zoologists to endorse the list or to give their reasons for not doing so. What we most need now is stability and that we can never have while each individual entomologist is free to accept as valid or to reject as invalid the numerous uncertain papers and books that appeared in the early days of our science and may still be imminent.